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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,349	02/01/2001	Yechiam Yemini	18704-015	7203
56949 7590 07/24/2007 WilmerHale/Columbia University 399 PARK AVENUE NEW YORK, NY 10022			EXAMINER SHAW, PELING ANDY	
			ART UNIT 2144	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/775,349

Applicant(s)

YEMINI ET AL.

Examiner

Peling A. Shaw

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

Continued Examination under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/16/2007 has been entered. Claims 1, 3, 8, 11, 16 and 18 are amended. Claims 1-21 are currently pending.
2. Amendment received on 06/08/2006 was entered into record. Claims 1-3, 5-8, 11 and 16-18 were amended. Claim 21 was new.

Priority

3. This application is claims priority to Provisional Application Serial No. 60,179,884, filed 02 February 2000, and to Provisional Application Serial No. 60/216,403, filed 06 July 2000. The filing date is 02/01/2001.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Jensen et al. (US 5870564 A), hereinafter referred as Jensen.

- a. Regarding claim 1, Jensen disclosed a network comprising a plurality of Nodes interconnected by Links (Fig. 2, items 140, 142 and 144: connectors; column 6, lines 38-44: communication links, edges, connectors; column 14, line 62-column 15, line 2: connectors), wherein: (a) each Node is assigned a set of one or more coordinate labels, each of said coordinate labels representing a path comprising one or more Links, and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more links in said path (abstract; column 6, line 65-column 7, line 8: mathematical nodes, edges in Cartesian grid; column 7, lines 52-63; column 8, lines 9-13 and 42-46: potential paths; column 18, lines 19-34: On the other hand, the granule 176b along with its edge 178b and underlying or previous granule 172a remain in consideration for inclusion in a potential path, by virtue of the favorable potential edges 182c, 182d, and 182e); (b) each coordinate label is unique to the Node to which it is assigned (column 6, line 65-column 7, line 17: mathematical nodes, edges in Cartesian grid, distance parameter, topology; column 7, lines 52-63: determining a near-optimal path limits the potential paths, evaluates currently acceptable potential path segments or edges); (c) a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined by combining at least one of said at least one label of one of said coordinate labels assigned to said first Node and at least one of said at least one label of one of said coordinate labels assigned to said second Node (column 4, lines 25-44: determining an improved path, evaluate a path segment by assessing the benefit of a net path including the path segment and a potential future

path segment depending on the path segment, where a path segment is an edge between adjacent granules in a network, and wherein all costs, distances, measures, metrics, capacities, and the like, along a path between the adjacent granules are associated with the edge there between; column 6, line 65-column 7, line 17:

mathematical nodes, edges in Cartesian grid, distance parameter, topology); and (d) said first Node stores the set of one or more coordinate labels (abstract; column 6, line 65-column 7, line 8: mathematical nodes, edges in Cartesian grid; column 7, lines 52-63; column 8, lines 9-13 and 42-46: potential paths; column 18, lines 19-34: On the other hand, the granule 176b along with its edge 178b and underlying or previous granule 172a remain in consideration for inclusion in a potential path, by virtue of the favorable potential edges 182c, 182d, and 182e).

- b. Regarding claim 2, Jensen disclosed the network of claim 1 wherein said first Node reroutes any data intended for said second Node in the event said second Node moves or fails (column 1, line 59-column 2, line 19: router may go down, need to route message in a way to accommodate; column 8, lines 18-28: optimal dynamic path).
- c. Regarding claim 16, Jensen disclosed a method for determining a path from a source Node to a destination Node in a network comprising a plurality of Nodes interconnected by Links, said Nodes including a first Node, and a plurality of second Nodes, said second Nodes including said source Node and said destination Node, said method comprising (abstract; column 17, lines 27-38; column 22, lines 50-60): (a) assigning to each of said second Nodes one or more coordinate labels, each coordinate label representing a path comprising one or more Links through said

network from one of said plurality of second Nodes to which it is assigned to said first Node, and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more links in said path (abstract; column 6, line 65-column 7, line 8: mathematical nodes, edges in Cartesian grid; column 7, lines 52-63; column 8, lines 9-13 and 42-46: potential paths; column 18, lines 19-34: On the other hand, the granule 176b along with its edge 178b and underlying or previous granule 172a remain in consideration for inclusion in a potential path, by virtue of the favorable potential edges 182c, 182d, and 182e); (b) determining a path from said source Node to said destination Node by combining at least one of said at least one label of one coordinate label of said source Node and at least one of said at least one label of one coordinate label of said destination Node (column 17, lines 27-38; column 22, lines 50-60); and (c) at one of said plurality of second Nodes, storing one or more coordinate labels of a another said plurality of second Nodes that is adjacent to said one of said plurality of second Nodes (column 13, lines 1-8; column 14, lines 13-21: router).

- d. Regarding claim 17, Jensen disclosed the method of claim 16 further comprising, at said one of said plurality of second Nodes, rerouting data intended for said another of said plurality of second Nodes in the event that one or more links and/or Nodes between said one of said plurality of second Nodes and said another said plurality of second nodes prevents communication between said one of said plurality of second Nodes and said another plurality of second nodes (column 4, lines 25-44: determining an improved path, evaluate a path segment by assessing the benefit of a net path

including the path segment and a potential future path segment depending on the path segment, where a path segment is an edge between adjacent granules in a network, and wherein all costs, distances, measures, metrics, capacities, and the like, along a path between the adjacent granules are associated with the edge there between;

column 6, line 65-column 7, line 17: mathematical nodes, edges in Cartesian grid, distance parameter, topology; column 13, lines 1-8; column 14, lines 13-21: router).

- e. Regarding claim 18, Jensen disclosed a Node for use in a network, said network comprising a plurality of Nodes connected by Links (Fig. 2, items 140, 142 and 144: connectors; column 6, lines 38-44: communication links, edges, connectors; column 14, line 62-column 15, line 2: connectors), wherein: (a) said Node for use in said network has one or more coordinate labels assign to said node, each coordinate label representing a path comprising one or more Links from said Node to a particular other Node of said network that includes at least a third Node between said first Node and said second Node, each of said coordinate labels being unique to said Node, each of said coordinate labels including a label that identifies each of said one or more Links in said path, said Node routes data to a destination Node via a path determined by combining at least one of said at least one label of one of said coordinate labels assigned to said Node and at least one of said at least one label of one of said coordinate labels assigned to said destination Node (abstract; column 6, line 65-column 7, line 8: mathematical nodes, edges in Cartesian grid; column 7, lines 52-63; column 8, lines 9-13 and 42-46: potential paths; column 18, lines 19-34: On the other hand, the granule 176b along with its edge 178b and underlying or previous granule

172a remain in consideration for inclusion in a potential path, by virtue of the favorable potential edges 182c, 182d, and 182e); and (b) said Node stores one or more coordinate labels corresponding to an adjacent Node (column 13, lines 1-8; column 14, lines 13-21: router).

- f. Regarding claim 19, Jensen disclosed the Node of claim 18 wherein said Node reroutes any data intended for said adjacent Node in the event said adjacent Node is moved to a different location (column 1, line 59-column 2, line 19: router may go down, need to route message in a way to accommodate; column 8, lines 18-28: optimal dynamic path).
- g. Regarding claim 20, Jensen disclosed the Node of claim 18 wherein said Node reroutes any data intended for said adjacent Node in the event said adjacent Node is unable to receive said packet (column 1, line 59-column 2, line 19: router may go down, need to route message in a way to accommodate; column 8, lines 18-28: optimal dynamic path).
- h. Regarding claim 21, Jensen disclosed the network of claim 1 wherein said first Node reroutes any data intended for said second Node in the event said that one or more Links and/or Nodes between said first Node and said second Node prevents communication between said first Node and said second Node (column 1, line 59-column 2, line 19: router may go down, need to route message in a way to accommodate; column 8, lines 18-28: optimal dynamic path).

Jensen disclosed all limitations of claims 1-2 and 16-21. Claims 1-2 and 16-21 are rejected under 35 U.S.C. 102(b).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-7 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al. (US 5870564 A), hereinafter referred as Jensen, in view of Denman et al. (US 6490451 B1), hereinafter referred as Denman.

- a. Jensen shows (claim 3) a network comprising a plurality of Nodes interconnected by Links (Fig. 2, items 140, 142 and 144: connectors; column 6, lines 38-44: communication links, edges, connectors; column 14, line 62-column 15, line 2: connectors), wherein: (a) each Node is assigned a set of one or more coordinate labels, each of said coordinate labels representing a path comprising one or more Links, and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more links in said path (abstract; column 6, line 65-column 7, line 8: mathematical nodes, edges in Cartesian grid; column 7, lines 52-63; column 8, lines 9-13 and 42-46: potential paths; column 18, lines 19-34: On the other hand, the granule 176b along with its edge 178b and underlying or previous granule 172a remain in consideration for inclusion in a potential path, by virtue of the favorable potential edges 182c, 182d, and 182e); (b) each coordinate label is unique to the Node to which it is assigned (column 6, line 65-column 7, line 17:

mathematical nodes, edges in Cartesian grid, distance parameter, topology; column 7, lines 52-63: determining a near-optimal path limits the potential paths, evaluates currently acceptable potential path segments or edges); (c) a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined by combining at least one of said at least one label of one of said coordinate labels assigned to said first Node and at least one of said at least one label of one of said coordinate labels assigned to said second Node (column 4, lines 25-44: determining an improved path, evaluate a path segment by assessing the benefit of a net path including the path segment and a potential future path segment depending on the path segment, where a path segment is an edge between adjacent granules in a network, and wherein all costs, distances, measures, metrics, capacities, and the like, along a path between the adjacent granules are associated with the edge there between; column 6, line 65-column 7, line 17: mathematical nodes, edges in Cartesian grid, distance parameter, topology). Jensen does not show (claim 3) at least one of said plurality of Nodes is automatically replicated to create at least one mirror Node.

- b. Denman shows (claim 3) at least one of said plurality of Nodes is automatically replicated to create at least one mirror Node (column 8, lines 2-10) in an analogous art for the purpose of providing packet-switched telephony.
- c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Jensen's functions of dynamically providing a path

through a network of nodes or granules with Denman's functions of replicating node services.

- d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to extend dynamic path provision through networks per Jensen's teaching to service replication per Denman's teaching for scalability, reliability, survivability and minimizing backhaul of bearer and signaling data across packet-switched network per Denman (column 8, lines 2-4).
- e. Regarding claims 4 and 5, Denman shows where said at least one mirror Node is mobile and where said at least one of said plurality of Nodes that is automatically replicated is mobile (Fig. 2; column 8, lines 2-10).
- f. Regarding claim 6, Denman shows where said at least one of said plurality of Nodes that is automatically replicated is a part of the World Wide Web (column 5, lines 23-45).
- g. Claim 7 is of the same scope as claim 3. It is rejected for the same reasons as for claim 3.
- h. Regarding claim 11, Jensen shows a network comprising a plurality of Nodes interconnected by Links (Fig. 2, items 140, 142 and 144: connectors; column 6, lines 38-44: communication links, edges, connectors; column 14, line 62-column 15, line 2: connectors), wherein: (a) each Node is assigned a set of one or more coordinate labels, each of said coordinate labels representing a path comprising one or more Links, and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more links in said path (abstract; column 6, line

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65-column 7, line 8: mathematical nodes, edges in Cartesian grid; column 7, lines 52-63; column 8, lines 9-13 and 42-46: potential paths; column 18, lines 19-34: On the other hand, the granule 176b along with its edge 178b and underlying or previous granule 172a remain in consideration for inclusion in a potential path, by virtue of the favorable potential edges 182c, 182d, and 182e); (b) each coordinate label is unique to the Node to which it is assigned (column 6, line 65-column 7, line 17: mathematical nodes, edges in Cartesian grid, distance parameter, topology; column 7, lines 52-63: determining a near-optimal path limits the potential paths, evaluates currently acceptable potential path segments or edges); (c) a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined by combining at least one of said at least one label of one of said coordinate labels assigned to said first Node and at least one of said at least one label of one of said coordinate labels assigned to said second Node (column 4, lines 25-44: determining an improved path, evaluate a path segment by assessing the benefit of a net path including the path segment and a potential future path segment depending on the path segment, where a path segment is an edge between adjacent granules in a network, and wherein all costs, distances, measures, metrics, capacities, and the like, along a path between the adjacent granules are associated with the edge there between; column 6, line 65-column 7, line 17: mathematical nodes, edges in Cartesian grid, distance parameter, topology). Denman shows said first Node is a mobile Node (Fig. 2; column 8, lines 2-10).

- i. Regarding claim 12, Denman shows where said mobile Node is a PDA (column 3, lines 40-67).
- j. Regarding claim 13, Denman shows where said mobile Node is a cellular telephone (column 5, lines 3-22).
- k. Regarding claim 14, Denman shows where said mobile Node is a laptop computer (Fig. 2; column 8, lines 2-10).

Together Jensen and Denman disclosed all limitations of claims 3-7 and 11-14. Claims 3-7 and 11-14 are rejected under 35 U.S.C. 103(a).

6. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al. (US 5870564 A), hereinafter referred as Jensen, in view of Heddaya et al. (US 6622157 B1), hereinafter referred as Heddaya.

- a. Jensen shows (claim 8) a network comprising a plurality of Nodes interconnected by Links (Fig. 2, items 140, 142 and 144: connectors; column 6, lines 38-44: communication links, edges, connectors; column 14, line 62-column 15, line 2: connectors), wherein: (a) each Node is assigned a set of one or more coordinate labels, each of said coordinate labels representing a path comprising one or more Links, and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more links in said path (abstract; column 6, line 65-column 7, line 8: mathematical nodes, edges in Cartesian grid; column 7, lines 52-63; column 8, lines 9-13 and 42-46: potential paths; column 18, lines 19-34: On the other hand, the granule 176b along with its edge 178b and underlying or previous granule 172a remain in consideration for inclusion in a potential path, by virtue of the

favorable potential edges 182c, 182d, and 182e); (b) each coordinate label is unique to the Node to which it is assigned (column 6, line 65-column 7, line 17: mathematical nodes, edges in Cartesian grid, distance parameter, topology; column 7, lines 52-63: determining a near-optimal path limits the potential paths, evaluates currently acceptable potential path segments or edges); (c) a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined by combining at least one of said at least one label of one of said coordinate labels assigned to said first Node and at least one of said at least one label of one of said coordinate labels assigned to said second Node (column 4, lines 25-44: determining an improved path, evaluate a path segment by assessing the benefit of a net path including the path segment and a potential future path segment depending on the path segment, where a path segment is an edge between adjacent granules in a network, and wherein all costs, distances, measures, metrics, capacities, and the like, along a path between the adjacent granules are associated with the edge there between; column 6, line 65-column 7, line 17: mathematical nodes, edges in Cartesian grid, distance parameter, topology). Jensen does not show (claim 8) automatically creates at least one cache and redirects a data request to said at least one cache.

- b. Heddaya shows (claim 8) automatically creates at least one cache and redirects a data request to said at least one cache (column 8, lines 5-18 and 33-53) in an analogous art for the purpose of extending network services using mobile agents.

- c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Jensen's functions of dynamically providing a path through a network of nodes or granules with Heddaya's functions of local cache.
- d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to extend dynamic path provision through networks per Jensen's teaching to using multiple nodes to fulfill service requests per Heddaya's teaching (column 3, lines 44-64).
- e. Regarding claims 9 and 10, Heddaya shows where said at least one cache is mobile and where said at least one cache contains a load from a mobile Node (column 8, lines 5-18 and 33-53).

Together Jensen and Heddaya disclosed all limitations of claims 8-10. Claims 8-10 are rejected under 35 U.S.C. 103(a).

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al. (US 5870564 A), hereinafter referred as Jensen, and Denman et al. (US 6490451 B1), hereinafter referred as Denman, and further in view of Chennakeshu et al. (US 6542758 B1), hereinafter referred as Chennakeshu.

- a. Jensen and Denman show claim 11 as above. Jensen and Denman do not show (claim 15) where said mobile Node is a router located on a vehicle.
- b. Chennakeshu shows (claim 15) where said mobile Node is a router located on a vehicle (Fig. 11; column 7, lines 39-47) in an analogous art for the purpose of distributed radio telephone for use in a vehicle.

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- c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Jensen's functions of dynamically providing a path through a network of nodes or granules with Chennakeshu's functions of using a radio phone in a vehicle.
- d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to extend dynamic path provision through networks per Jensen's teaching to service replication per Denman's teaching for scalability, reliability, survivability and minimizing backhaul of bearer and signaling data across packet-switched network per Denman (column 8, lines 2-4) and to a vehicle based network per Chennakeshu's teaching (column 7, lines 39-47).

Together Jensen, Denman and Chennakeshu disclosed all limitations of claim 15. Claim 15 is rejected under 35 U.S.C. 103(a).

Response to Arguments

8. Applicant's arguments filed on 03/15/2005 have been fully considered, but they are not persuasive.

- a. Applicant has argued (1st paragraph on page 10) that Cartesian coordinates does not represent a "path", let alone "a path comprising one or more Links or other Nodes ". Examiner does not mean to equate "Cartesian coordinate" with a "path". Examiner merely use the cited reference to point out the common usage of "Cartesian coordinate" to label some mathematical element here in Jensen, it is a node. As applicant does define the coordinate to label a path as per Fig. 3-4 or 8, examiner does not see the difference of calling a path as a series of links or connections as per Jensen (Fig. 2, items 140, 142 and 144: connectors; column 6, lines 38-44: communication links, edges, connectors; column 14, line 62-column 15, line 2: connectors) from a coordinate per applicant's claim language. It is well known as per applicant disclosed prior art, Marc Bui et al. ("Randomized Adaptive Routing Based on Mobile Agents") that (section 2) a path from a node i to another node j is denoted by a series of nodes where $(i, n_1), (n_x, n_{x+1}), (n_k, j)$ are links (Fig. 2) in the path. This is consistent with applicant's specification and claim language. As Jensen has shown above a sequence of links are used for denoting path, e.g. abstract, Jensen does have the notion of link and path. Jensen has further shown (column 6, line 65-column 7, line 8) using mathematical nodes in showing connections in Cartesian, i.e. coordinated (labeled) nodes and links (Fig. 3, items 21u, 21v and 21j; column 15,

lines 59-65) as per Marc Bui et al. (Fig. 2) above. Thus Jensen doe have the claim language.

- b. It is the Examiner's position that Applicant has not submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior arts. As it is Applicant's right to claim as broadly as possible their invention, it is also the Examiner's right to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique (see item a in section 4, items a and d in section 5, and items a-d in section 6).

Applicant is advised to amend the claim language to include from the original specification and claim language specific features that would distinguish applicant's invention over the cited prior arts above in the rejection sections and the Remarks section below.

Remarks

9. The following pertaining arts are discovered and not used in this office action. Office reserves the right to use these arts in later actions.

- a. Bosack (US 5088032 A) Method and apparatus for routing communications among computer
- b. Beshai et al. (US 6667956 B2) Multi-class network
- c. McCanne (US 6785704 B1) Content distribution system for operation over an internetwork including content peering arrangements
- d. Oltman et al. (US 6785226 B1) System and method for data routing over a network
- e. Aggarwal et al. (US 6717921 B1) Method for configuring a shared tree for routing traffic in a multicast conference
- f. Yamazaki (US 5655134 A) Network structure storing and retrieval method for a data processor
- g. Ogier et al. (US 20020012320 A1) Mobile ad hoc extensions for the internet

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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W. C. Vaughn
WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100